

CLAIMS

What is claimed is:

1. An apparatus for determining an amount of resources to be provisioned for a wired communication link of a wireless network, the apparatus comprising:
first logic configured to receive and store information relating to a type of coding algorithm used to encode data communicated between a wireless network transmitter and a wireless device; and
second logic configured to process the information relating to the coding algorithm used to determine a probability that a given amount of resources will need to be provisioned for the wired communication link.
2. The apparatus of claim 1, wherein the second logic uses a convolution algorithm to process the information relating to the coding algorithm being used to determine said probability.
3. The apparatus of claim 1, wherein the second logic uses a central-limit theorem algorithm to process the information relating to the coding algorithm being used to determine said probability.
4. The apparatus of claim 1, wherein the apparatus is a computer, the first logic being a memory element of the computer configured to store said information and the second logic being a processor of the computer programmed to process said information to determine said probability.
5. The apparatus of claim 1, wherein the transceiver is a transceiver of a base station of a wireless network, and wherein said wired communication link is an Abis link between the base station transmitter and a base station controller of the wireless network.
6. The apparatus of claim 1, wherein the wireless network is a Universal Mobile Telecommunications System (UMTS) wireless network, said wired communication link being a wired LUB link between a Node B of a UMTS network and a Radio Network Controller of the UMTS network.

7. The apparatus of claim 1, wherein the wireless network is a wireless local area network (WLAN), the transmitter being a transmitter of an access point of the wireless local area network (WLAN).
8. The apparatus of claim 1, wherein said information is obtained at the base station controller by obtaining statistics relating to different types of coding algorithms that the base station controller used over a given period of time to encode data transmitted between the transmitter and the wireless device.
9. The apparatus of claim 1, wherein said information is calculated based on the quality of the air interface between the transmitter and wireless devices.
10. A method for determining an amount of resources to be provisioned for a wired communication link of a wireless network, the method comprising:
 - estimating a probability that one or more coding schemes were used over a particular period of time to encode data transmitted by a transmitter of the wireless network to one or more wireless devices over an air interface of the wireless network;
 - based on the estimation, determining a probability distribution that a particular number of backhaul link channels are needed per air interface channel; and
 - based on the determination, estimating a probability that a total number of backhaul link channels need to be provisioned for all of the air interface channels.
11. A method for determining an amount of resources to be provisioned for a wired communication link of a wireless network, the method comprising:
 - receiving and storing information relating to a probability that one or more types of coding algorithms were used to encode data communicated between a transmitter of the wireless network and one or more wireless devices; and
 - processing the information to determine a probability that a given amount of resources will be needed for the communication link.
12. The method of claim 11, wherein said processing includes using a convolution algorithm.
13. The method of claim 11, wherein said processing includes using a central-limit theorem.

14. The method of claim 11, wherein the wired communication link is an Abis link between a base station transceiver and a base station controller.

15. The method of claim 11, further comprising:

prior to receiving and storing the information relating to said probability, obtaining said information by measuring different types of coding algorithms that a base station controller used over a given period of time to encode data transmitted between the transceiver and the wireless device.

16. The method of claim 11, further comprising:

prior to receiving and storing the information relating to said probability, obtaining said information by calculating, based on a quality of an air interface between the transmitter and the wireless devices, different types of coding algorithms that a base station controller used over a given period of time to encode data transmitted between the transceiver and the wireless device.

17. The method of claim 11, wherein the transmitter is part of a transceiver of a base station of a wireless network, and wherein said communication link is a wired Abis link between the base station transceiver and a base station controller of the wireless network.

18. The method of claim 11, wherein the wireless network is a Universal Mobile Telecommunications System (UMTS) wireless network, said communication link being a wired LUB link between a Node B of a UMTS network and a Radio Network Controller of the UMTS network.

19. The method of claim 11, wherein the wireless network is a wireless local area network (WLAN), the transmitter being part of a transceiver of an access point of the wireless local area network (WLAN).

20. A computer program for determining an amount of resources to be provisioned for a wired communication link of a wireless network, the program being embodied on a computer-readable medium, the program comprising:

a first code segment for receiving and storing information relating to a probability that one or more types of coding algorithms were used over a given period of time to encode data

communicated over an air interface between a transmitter of the wireless network and one or more wireless devices; and

a second code segment for processing said information to determine a probability that a given amount of resources will be needed for the wired communication link.

21. The program of claim 20, wherein the second code segment comprises code for performing a convolution algorithm.

22. The program of claim 20, wherein the second code segment comprises code for performing a central-limit algorithm.